



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/568,742

10/02/2006

Michel Monnerat

LUTZ 200641

4969

48116 7590 11/20/2009
FAY SHARPE/LUCENT
1228 Euclid Avenue, 5th Floor
The Halle Building
Cleveland, OH 44115-1843

EXAMINER

NEFF, MICHAEL R

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

11/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,742	Applicant(s) MONNERAT, MICHEL	
	Examiner MICHAEL R. NEFF	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/19/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

2. The indicated allowability of claims 6-8 in light of 112 issues is withdrawn in view of the newly discovered reference(s) to IDS document Karouby. Rejections based on the newly cited reference(s) follow.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 8/19/2009 has been considered by the examiner.

Claim Rejections - 35 USC § 112

4. All previously presented 112 issues have been corrected via the amendment filed 8/19/2009.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 2, 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

7. Claims 1 and 9 recites the limitation "the vector" in line 14 of each claim. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2611

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 2, 4, 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lennen (US Patent 5,818,539, see IDS) in view of Sandberg (US Publication 2002/0172307 A1).

Re claims 1 and 9, Lennen discloses a method and device of validating the detection of a correlation peak between: a signal transmitted by a plurality of navigation satellites (Col. 1 lines 20-28) and received by an radio navigation satellite system (RNSS) satellite radio navigation receiver (Col. 1 lines 20-28), said signal corresponding to a sum of signals each sent by a satellite and each modulated by a spread spectrum signal characteristic of said satellite (Figure 11 element 22; Col. 2 lines 25-28; Col. 5 lines 2-15), a local replica generated by said receiver (Col. 2 lines 25-32), said replica being the replica of a spread spectrum signal characteristic of a satellite that is being

Art Unit: 2611

looked for (Col. 2 lines 25-32; Figure 11 element 28), said method including a step of determining the correlation function as a function of time between said received signal and said local replica (Figure 11 element 30; Col. 2 lines 25-45, also lines 53-60), but fails to explicitly disclose where said method being characterized in that it further includes a step of comparing said correlation function with the theoretical autocorrelation function as a function of time of said spread spectrum signal characteristic of said satellite that is being looked for over the whole of the vector of the correlation function wherein comparing said correlation function with the theoretical autocorrelation function includes a step of comparing secondary peaks of each of said functions.

This method and device design is however disclosed by Sandberg. Sandberg discloses where said method being characterized in that it further includes a step of comparing said correlation function with the theoretical autocorrelation function as a function of time of said spread spectrum signal characteristic of said satellite that is being looked for over the whole of the vector of the correlation function (paragraphs 0045-0049) wherein comparing said correlation function with the theoretical autocorrelation function includes a step of comparing secondary peaks of each of said functions (paragraphs 0045-0049, figures 8, 9 and 10).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disclosure of Lennen to incorporate the further aspect of selection via correlation function comparison as a means to further ensure that the most ideal selection is made during the processing of the method steps.

Re Claim 2, the combined disclosure of Lennen and Sandberg as a whole discloses the validation method according to claim 1, Lennen further characterized in that it includes a step of determining said theoretical autocorrelation function as a function of time of said spread spectrum signal characteristic of said satellite that is being looked for (Figure 10 and associated disclosure; Col. 2 lines 6-24).

Re Claim 4, the combined disclosure of Lennen and Sandberg as a whole discloses the validation method according to claim 1, Lennen further discloses that said comparison step includes a step of calculating the correlation between said correlation function and said autocorrelation function (element 124, Col. 11 lines 3-17; correlation scanner device to look at the processed function).

Re Claim 5, the combined disclosure of Lennen and Sandberg as a whole discloses the validation method according to claim 1, Lennen further that said spread spectrum signal is a signal modulating said signal with a known pseudorandom sequence replacing each bit of said signal (Col. 2 lines 25-28; the use of spread spectrum inherently implies the use of pseudo random sequencing in order to control the spreading pattern across a given bandwidth to one of ordinary skill in the art).

Art Unit: 2611

11. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lennen and Sandberg as applied to claim 1 above, and further in view of Karouby (5373298 see IDS).

Re claim 6, the combined disclosure of Lennen and Sandberg as a whole discloses the validation method according to claim 1, but fails to explicitly disclose wherein that, in the event of non-validation of the detection of said correlation peak, said method includes the following steps: a step of determining theoretical intercorrelation functions as a function of time between said spread spectrum signal characteristic of said satellite that is being looked for and each of the satellites other than said satellite that is being looked for, and a step of comparing said correlation function with each of said theoretical intercorrelation functions.

This design is however disclosed by Karouby. Karouby discloses that, in the event of non-validation of the detection of said correlation peak, said method includes the following steps: a step of determining theoretical intercorrelation functions as a function of time between said spread spectrum signal characteristic of said satellite that is being looked for and each of the satellites other than said satellite that is being looked for (Col. 3 lines 13-Col. 4 line 15; the disclosure of the error determination for locations over time is interpreted as providing the same information as the intercorrelation), and a step of comparing said correlation function with each of said theoretical intercorrelation functions (Comparison of calculated to theoretical values has already been shown as a function of the system processing as provided above).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the degree of error between functions as a means for determining satellite selection as provided in the disclosure of Karouby to further ensure that the most ideal selection is made during the processing of the method steps.

Re claim 7, the combined disclosure of the combined disclosure of Lennen, Sandberg and Karouby as a whole discloses the validation method according to claim 6, Karouby further discloses that each of said spread spectrum signals associated with a particular satellite is selected so that said theoretical autocorrelation function and each of said theoretical intercorrelation functions are different (Col. 3, matrix K construction and implementation).

Re claim 8, the combined disclosure of the combined disclosure of Lennen, Sandberg and Karouby as a whole discloses the validation method according to claim 6, Karouby further discloses that each of said spread spectrum signals associated with a particular satellite is selected so that each of said theoretical intercorrelation functions is decorrelated (Col. 3, matrix K construction and implementation).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. NEFF whose telephone number is

Art Unit: 2611

(571)270-1848. The examiner can normally be reached on Monday - Friday 8:00am - 4:30pm EST ALT Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571)272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL R. NEFF/
Examiner, Art Unit 2611
/Shuwang Liu/
Supervisory Patent Examiner, Art Unit 2611